

WE CLAIM:

1. A method for mirroring a connection in a network, comprising:  
receiving, by a first network device, a packet from a resource;  
communicating the packet to a second network device;  
forwarding the packet to another network device, wherein the packet is forwarded by a forwarding device that is determinable from at least the first network device and the second network device;  
receiving, by the first network device, a response packet from the other network device;  
communicating, by the first network device, the response packet to the second network device; and  
forwarding, by the forwarding device, the response packet towards the resource.
2. The method of Claim 1, wherein the first network device is an active network device, the second network device is a standby network device, and the forwarding device is the active network device.
3. The method of Claim 1, wherein the first network device is an active network device, the second network device is a standby network device, and the forwarding device is the standby network device.
4. The method of Claim 1, wherein the first network device is a standby network device, the second network device is an active network device, and the forwarding device is the active network device.
5. The method of Claim 1, wherein the first network device is a standby network device, the second network device is an active network device, and the forwarding device is the standby network device.

6. The method of Claim 1, wherein the first network device and the second network device are each configured to balance a network load.

7. The method of Claim 1, wherein forwarding the packet to the other network device, further comprises transforming the packet.

8. The method of Claim 1, further comprising:  
upon communicating the packet to the second network device, sending, by the forwarding device, an acknowledgement packet to the resource; and  
upon communicating the response packet to the second network device, sending, by the forwarding device, another acknowledgement packet to the other network device.

9. The method of Claim 1, wherein forwarding the packet to the other network device further comprises transforming the packet, and wherein forwarding the response packet further comprises transforming the response packet.

10. The method of Claim 9, wherein transforming the packet further comprises sharing information associated with the transformation between the first network device and the second network device.

11. The method of Claim 10, wherein the information shared is sent from an active network device to a standby network device.

12. The method of Claim 1, further comprising, determining if the connection is to be mirrored based in part on at least one of a duration of the connection, a size of the packet, a content of the packet, an application associated with the packet, and a characteristic associated with a user of the resource.

13. The method of Claim 12, further comprising, if it is determined that the connection is non-mirrored, determining the forwarding device as the first network device for communication.

14. A method for mirroring a connection in a network, comprising:  
receiving, by an active network device, a packet from a resource;  
forwarding, by the active network device, a copy of the packet to a standby network device;  
forwarding the packet towards another network device, wherein the packet is forwarded by the active network device;  
receiving, by the active network device, a response packet from the other network device;  
forwarding, by the active network device, a copy of the response packet to the standby network device; and  
forwarding, by the active network device, the response packet towards the resource.

15. The method of Claim 14, wherein forwarding the packet towards the other network device further comprises transforming the packet, and wherein forwarding the response packet towards the resource further comprises transforming the response packet.

16. The method of Claim 15, wherein transforming the packet further comprises performing at least one of a Secure Socket Layer (SSL) action, a security action, a compression action, a decompression action, an encryption action, and a decryption action.

17. The method of Claim 14, further comprising:  
upon forwarding the copy of the packet to the standby network device, sending, by the active network device, an acknowledgement packet to the resource; and

upon forwarding the copy of the response packet to the standby network device, sending, by the active network device, an acknowledgement packet to the other network device.

18. The method of Claim 14, further comprising:

dynamically determining if the packet is to be mirrored based in part on at least one of a duration of a connection associated with the packet, a size of data associated with the packet, a characteristic associated with the packet, a characteristic associated with a user of the resource, and an application associated with the connection.

19. A method for mirroring a connection in a network, comprising:

receiving, by an active network device, a packet from a resource;  
communicating a copy of the packet to a standby network device;  
forwarding the copy of the packet to another network device, wherein the copy of the packet is forwarded by the standby network device;  
receiving, by the active network device, a response packet from the other network device;  
communicating a copy of the response packet to the standby network device; and  
forwarding, by the standby network device, the copy of the response packet towards the resource.

20. The method of Claim 19, further comprising:

synchronizing the standby network device with the active network device by communicating pre-determined information about each active connection to the standby network device on a busiest connection first order of connections.

21. The method of Claim 20, wherein the pre-determined information includes at least one of a change in a sequence number, and a Network Address Translation (NAT), and a port address translation.

22. A method for mirroring a connection in a network, comprising:  
receiving, by a standby network device, a packet from a resource;  
forwarding a copy of the packet to an active network device;  
forwarding a copy of the packet to another network device, wherein the  
copy of the packet is forwarded by the active network device;  
receiving, by the standby network device, a response packet from the  
other network device;  
forwarding a copy of the packet to the active network device; and  
forwarding, by the active network device, the copy of the response  
packet towards the resource.

23. The method of Claim 22, wherein forwarding the copy of the packet to  
the other network device further comprises transforming the copy of the packet, and  
wherein forwarding the copy of the response packet further comprises transforming the  
copy of the response packet.

24. The method of Claim 23, wherein transforming the packet further  
comprises sharing information associated with the transformation between the active  
network device and the standby network device.

25. A network device, for mirroring a connection with another network  
device in a network, comprising:

a transceiver arranged to receive and forward a packet;  
a processor, coupled to the transceiver, that is configured to perform  
actions, including:

receiving a packet from a resource;  
communicating the packet to the other network device;  
if the network device is a forwarding device, forwarding the  
packet towards a server;  
receiving a response packet from the server;

communicating the response packet to the other network device;  
and

if the network device is the forwarding device, forwarding the response packet towards the resource.

26. The network device of Claim 25, further comprising:  
if the other network device is the forwarding device, enabling the other network device to forward the packet towards the server, and to forward the response packet towards the resource.

27. The network device of Claim 25, wherein the network device and the other network device are configured to operate as at least one of a load-balancer, a router, a firewall, a proxy, a bridge and a network address translation device.

28. A standby network device, for mirroring a connection with an active network device in a network, comprising:

a transceiver arranged to receive and forward a packet;  
a processor, coupled to the transceiver, that is configured to perform actions, including:  
receiving a packet from a resource;  
communicating a copy of the packet to the active network device;  
receiving a response packet from another resource, wherein the response packet is in response to the other resource receiving a copy of the packet from the active server; and  
communicating a copy of the response packet to the active network device.

29. The standby network device of Claim 28, wherein the active device is configured to communicate an acknowledgement packet to the resource in response to receiving the copy of the packet, and to further communicate another acknowledgement packet to the other resource in response to receiving the copy of the response packet.

30. A system for mirroring a connection in a network, comprising:

- (a) a first network device, configured to perform actions, including:
  - receiving a packet from a resource;
  - sending the packet to a second network device;
  - if the first network device is a pre-determined forwarding network device, forwarding the packet towards another resource;
  - receiving a response packet from the other resource; and
  - if the first network device is the pre-determined forwarding network device, forwarding the response packet towards the resource; and
- (b) the second network device, coupled to the first network device, and configured to perform actions, including:
  - receiving the packet from the first network device; and
  - if the second network device is the pre-determined forwarding network device, forwarding the packet towards the other resource, and forwarding the response packet towards the resource.

31. The system of Claim 30, wherein the first network device is an active network device, the second network device is a standby network device, and the forwarding network device is the active network device.

32. The system of Claim 30, wherein the first network device is an active network device, the second network device is a standby network device, and the forwarding device is the standby network device.

33. The system of Claim 30, wherein the first network device is a standby network device, the second network device is an active network device, and the forwarding device is the active network device.

34. The system of Claim 30, wherein forwarding the packet further comprises sharing information between the first network device and the second network device.

35. An apparatus, for mirroring a connection in a network, comprising:  
a transceiver arranged to receive and forward a packet;  
a processor, coupled to the transceiver, that is configured to perform actions, including:  
receiving a packet from a resource;  
communicating the packet to another apparatus;  
if the apparatus is a forwarding device, forwarding the packet towards another resource;  
receiving a response packet from the other resource;  
communicating the response packet to the other apparatus; and  
if the apparatus is the forwarding device, forwarding the response packet towards the resource.

36. The apparatus of Claim 35, wherein the apparatus and the other apparatus are each configured to balance a network load.

37. The apparatus of Claim 35, wherein forwarding the packet to the other apparatus, further comprises transforming the packet.

38. The apparatus of Claim 35, further comprising:  
upon communicating the packet to the other apparatus, sending, by the forwarding device, an acknowledgement packet to the resource; and  
upon communicating the response packet to the other apparatus, sending, by the forwarding device, another acknowledgement packet to the other resource.

39. The apparatus of Claim 35, wherein forwarding the packet to the other apparatus further comprises transforming the packet, and wherein forwarding the response packet further comprises transforming the response packet.



40. The apparatus of Claim 35, wherein transforming the packet further comprises sharing information associated with the transformation between the apparatus and the other apparatus.

41. The apparatus of Claim 35, wherein the information shared is sent from an active network device to a standby network device.

42. The apparatus of Claim 35, wherein the apparatus is an active network device, the other apparatus is a standby network device, and the forwarding device is the active network device.

43. The apparatus of Claim 35, wherein the apparatus is an active network device, the other apparatus is a standby network device, and the forwarding device is the standby network device.

44. The apparatus of Claim 35, wherein the apparatus is a standby network device, the other apparatus is an active network device, and the forwarding device is the active network device.

45. The apparatus of Claim 35, wherein the apparatus is a standby network device, the other apparatus is an active network device, and the forwarding device is the standby network device.